

AMENDMENTS TO THE DRAWINGS

The attached Replacement Sheets of drawings includes changes to Figs. 1-3. These Replacement Sheets replace the original sheets including Figs. 1-3. Annotated Sheets are also included showing the changes being made to Figs. 1-3.

Attachment: **Replacement Sheets**
 Annotated Sheets

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-4 are pending in the present application. Claims 1-4 have been amended. Claims 1 and 3 are independent claims. The Examiner is respectfully requested to reconsider the outstanding rejections in view of the above amendments and the following remarks.

Claim for Priority

It is gratefully acknowledged that the Examiner has recognized Applicant's claim for foreign priority. In view of the fact that Applicant's claim for foreign priority has been perfected, no additional action is required from Applicant at this time.

Drawings

The Examiner objected to the drawings, asserting that Figs. 1-3 should be designated by a legend such as --PRIOR ART--. Attached hereto are amended drawings in which such a legend has been added to Figs. 1-3. Thus, the Examiner is requested to withdraw this objection.

Claim Objections

The Examiner objected to claims 1-4 because the word "characterized" is included, which is not in accordance with standard practice. Applicant has amended the claims to remove the word "characterized." Thus, the Examiner is requested to withdraw this objection.

Rejection Under 35 U.S.C. § 112

Claims 1-4 stand rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite. In making this rejection, the Examiner asserts that the claims are generally narrative and indefinite, failing to conform with U.S. practice. The Examiner also asserts that "V1-VL" needs clarification, and acronyms need to be spelled out.

Applicant has amended claims 1-4 to improve grammar and be more consistent with U.S. practice. Further, amended claims 1-4 no longer contains “V1-VL,” or acronyms which are not spelled out. Accordingly, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Furthermore, the Examiner’s asserts that there could be a statutory problem with respect to claims 1-4. In response, Applicant points out that claims 1 and 2 have been amended to tie the claimed method with specific structure (i.e., at least one buffer memory and a multiplexer). Further, claims 3 and 4 recite a system, including means-plus-function elements (i.e., “means for receiving” and “means for forwarding”) whose corresponding structure are described in the specification (i.e., buffer memory, multiplexor). As such, it is respectfully submitted that claims 1-4 recite statutory subject matter under § 101.

Rejection Under 35 U.S.C. § 103

Claims 1-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0100967 to Robotham et al. (hereafter “Robotham”) in view of Applicant’s admitted prior art (hereafter “APA”). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicant respectfully submits that Robotham and APA fail to provide a teaching or suggestion of every claimed feature.

Independent claim 1 recites the following features:

- *defining an earliest permitted moment, at which a packet can be forwarded [...], is defined as a greatest value of Valid Time to Send -values of [...] the shaping groups, to which a traffic flow represented by the packet to be forwarded belongs, and*
- *as a result of forwarding the packet, updating the Valid Time to Send -values of the same shaping groups to which the forwarded packet belongs, are updated, a Valid*

Time to Send -value of each shaping group expressing an earliest permitted moment, at which a packet belonging to that shaping group can be forwarded without breaking restrictions of speed properties of that shaping group.”

In the rejection, the Examiner admits that Robotham does not teach the aforementioned claim features. However, the Examiner asserts that APA teaches these features. Applicant respectfully disagrees.

In the APA described in the present application, a shaped traffic flow or a shaped aggregate of several traffic flows belongs to only one shaping group. For each shaping group, there can be more than one restriction of speed properties.

For example, in the case related to equations (1) – (3), there are the following speed property restrictions:

- (a) Committed Information Rate (CIR), i.e., the greatest permitted mean traffic speed,
- (b) Committed Burst Size (CBS), i.e., the greatest permitted burst size, when exceeding the committed information rate, and
- (c) Peak Information Rate (PIR), i.e., the greatest permitted momentary traffic speed.

Also, in equations (1) - (3), VTS_CIR represents the earliest permitted moment when a packet is allowed to be forwarded in order not to violate the above-mentioned speed property restrictions (a) and (b), while VTS_PIR represents the earliest permitted moment when the packet is allowed to be forwarded in order not to violate the above-mentioned speed property restriction (c).

For the above case, APA teaches selecting a maximum of VTS_CIR and VTS_PIR in order not to violate any of the above-mentioned speed property restrictions (a) - (c). Hence, APA teaches to select a maximum of VTS-values of one shaping group in order not to violate any of several speed property restrictions of that particular shaping group.

APA does not teach defining an earliest permitted moment, at which a packet can be forwarded, as a greatest value of VTS-values of those shaping groups, to which a traffic flow represented by the packet to be forwarded belongs.

Hence, APA does not teach the following subject matter of the amended independent claims:

“- defining an earliest permitted moment, at which a packet can be forwarded by the multiplexer, as a greatest value of Valid Time to Send -values of those at least two shaping groups to which a traffic flow represented by the packet to be forwarded belongs” (emphasis added).

As a corollary, APA does not teach the following feature either:

“- as a result of forwarding the packet, updating the Valid Time to Send -values of the same shaping groups to which the forwarded packet belongs, a Valid Time to Send -value of each shaping group expressing an earliest permitted moment at which a packet belonging under that shaping group can be forwarded without breaking restrictions of speed properties of that shaping group.”

Instead, the APA rule, as characterized in Equation (3), would be to define the earliest permitted moment at which a packet can be forwarded as the greatest value of the VTS-values of different speed property restrictions defined for the one shaping group to which a traffic flow represented by the packet belongs.

In APA, each shaped traffic flow or shaped aggregate of several traffic flows belongs to only one shaping group. Hence, there is no need to find a maximum VTS-value from among VTS-values of different shaping groups. Because of this, APA does not provide any teaching or suggestion for a skilled person to modify the aforementioned rule of APA into the form recited in the independent claims of the present application, i.e., to define the earliest permitted moment at which the packet can be forwarded as a greatest value of VTS-values of at the least two shaping groups to which a traffic flow represented by the packet to be forwarded belongs.”

Hence, Applicant submits that Robotham and APA fail to provide a teaching or suggestion of every feature recited in the independent claims of the present application. As such, Applicant respectfully submits that independent claims 1 and 3 are in condition for allowance. Accordingly, claims 2 and 4 are allowable at least by virtue of their dependency on claims 1 and 3. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

Since the remaining patent cited by the Examiner has not been utilized to reject the claims, but to merely show the state of the art, no comment need be made with respect thereto.

In view of the above amendments and remarks, the Examiner is respectfully requested to reconsider the outstanding rejections and issue a Notice of Allowance in the present application.

Should the Examiner believe that any outstanding matters remain in the present application, the Examiner is respectfully requested to contact Jason W. Rhodes (Reg. No. 47,305) at the telephone number of the undersigned to discuss the present application in an effort to expedite prosecution.

Application No. 10/575,710
Amendment dated February 12, 2009
Reply to Office Action of November 13, 2008

Docket No.: 0365-0674PUS1

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: February 12, 2009

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Attachments